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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,709

04/06/2007

Andrew Stuart Overend

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9629 7590 02/13/2009
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EXAMINER

NGUYEN, VU ANH

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

02/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,709	Applicant(s) OVEREND ET AL.	
	Examiner Vu Nguyen	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 12-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/20/2006, 04/06/2007</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims 1-9 and 12-19 are pending in this application.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A substantially solvent-free and photoinitiator-free curable ink.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 and 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (WO 99/29788 A1).
4. Corresponding to the limitations set forth in these claims, Johnson et al. teaches a non-aqueous, solvent-free, curable inkjet ink composition comprising a colorant and a reactive diluent, wherein the reactive diluent comprising (relative to 100% by weight of the total reactive material) at least 20% of a monofunctional material, at least 17.5% of a difunctional material such that the total amount of the di- or higher functional material is

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not less than 35%, and wherein the ink has a viscosity not greater than 35 mPa·s at 30°C (Claim 1; p. 2, last paragraph). Since viscosity is normally decreased as temperature is increased, the viscosity of the disclosed ink is inherently less than 30 mPa·s at 60°C. The ink is free of a photoinitiator if cured by electron beam (p. 5, 3rd paragraph). The amount of the colorant in the ink is 01-10 wt% (Claim 16) and the colorant includes the pigments recited in the instant claim 12 (p. 6). The monofunctional material includes species recited in the instant claims 1, 3, 5 and 12 (p. 10, 1st full paragraph; Claim 20). The difunctional material includes species recited in the instant claims 3, 6 and 12 (p. 12, 1st full paragraph; Claims 23-24). The trifunctional material includes species recited in the instant claims 7 and 12 (p. 11, 1st full paragraph; Claim 21). In the examples (Table 1), the amounts of the mono-, di- and tri-functional reactive materials read on the formula recited in claims 1, 4 and 12. For example, the amounts in the Magenta ink of Table 1 give a value, calculated according to the formula in claim 1, of 4.5. The ink is filtered through a 1 micron-pore filter (p. 23, 1st full paragraph). An inkjet printing method along with printed substrates is also taught (Claims 39-49; p. 20).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Nguyen whose telephone number is (571)270-5454. The examiner can normally be reached on M-F 7:30-5:00 (Alternating Friday Off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vu Nguyen
Examiner
Art Unit 1796

/David Wu/
Supervisory Patent Examiner, Art Unit 1796